

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015515**Date Inspected:** 11-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Li Yang and Wu Zhi Cheng	CWI Present:	Yes	No
Inspected CWI report:	Yes No N/A	Rod Oven in Use:	Yes	No N/A
Electrode to specification:	Yes No N/A	Weld Procedures Followed:	Yes	No N/A
Qualified Welders:	Yes No N/A	Verified Joint Fit-up:	Yes	No N/A
Approved Drawings:	Yes No N/A	Approved WPS:	Yes	No N/A
		Delayed / Cancelled:	Yes	No N/A
Bridge No:	34-0006	Component:	OBG Trial Assembly	

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 7BE

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Partial Height Diaphragm flange to the Side Panel at Panel Points (PP) 50, PP 51 and PP 53 for Segment 7BE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00418 dated July 11, 2010.

The bolt sizes used were M22 x 65 RC Lot # DHGM240013 and the final torque value established was 540 N-m.

The manual torque wrench used to verify tension was S/N XO2-666. Please reference the pictures attached for more comprehensive details.

Segment 7DE

WELDING INSPECTION REPORT

(Continued Page 2 of 5)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Partial Height Diaphragm flange to the Side Panel at Panel Points (PP) 56, PP 57 and PP 58 for Segment 7DE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00418 dated July 11, 2010.

The bolt sizes used were M22 x 65 RC Lot # DHGM240013 and the final torque value established was 540 N-m.

The manual torque wrench used to verify tension was S/N XO2-666.

Segment 8AW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Cat Walk between Panel Points (PP) 62 and PP 63 for Segment 8AW. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00418 dated July 11, 2010.

The bolt sizes used were M16 x 45 RC Lot # DHGM160010 and the final torque value established was 200 N-m.

The bolt sizes used were M16 x 50 RC Lot # DHGM160011 and the final torque value established was 200 N-m.

The manual torque wrench used to verify tension was S/N XO2-114. Please reference the pictures attached for more comprehensive details.

Segment 8CW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Cat Walk between Panel Points (PP) 68 and PP 69 for Segment 8CW. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00418 dated July 11, 2010.

The bolt sizes used were M16 x 45 RC Lot # DHGM160010 and the final torque value established was 200 N-m.

The bolt sizes used were M16 x 50 RC Lot # DHGM160011 and the final torque value established was 200 N-m.

The manual torque wrench used to verify tension was S/N XO2-114.

Segment 9CE to 9DE

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE9C-003. The welder identification were 037932, 067765 and 066179 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as Bottom Panel transverse splice. Please reference the pictures attached for more comprehensive details.

WELDING INSPECTION REPORT

(Continued Page 3 of 5)

Segment 9BE to 9CE

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE9-006. The welder identification was 048659 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-345-SMAW-3G (3F)-FCM-Repair-1. The piece mark was identified as Edge Panel transverse splice Cross Beam side.

Segment 9BE to 9CE

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE9-010. The welder identification was 048659 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-345-SMAW-3G (3F)-FCM-Repair-1. The piece mark was identified as Edge Panel transverse splice Bike Path side.

Segment 9CE to 9DE

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SP347-001-044, SP347-001-046, SP347-001-048, SP347-001-050, SP347-001-052 and SP347-001-054. The welder identification was 068864 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233T and WPS-B-T-2233-B-U2-F. The piece mark was identified as T-Rib to T-Rib web at Side Panel Bike Path side.

Segment 9CE to 9DE

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SP374-001-044, SP374-001-046, SP374-001-048, SP374-001-050, SP374-001-052 and SP374-001-054. The welder identification was 068923 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233T and WPS-B-T-2233-B-U2-F. The piece mark was identified as T-Rib to T-Rib web at Side Panel Bike Path side.

Segment 9CE to 9DE

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SP320-001-051, SP320-001-053, SP320-001-055, SP320-001-057, SP320-001-059 and SP320-001-063. The welder identification was 037907 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233T and WPS-B-T-2233-B-U2-F. The piece mark was identified as T-Rib to T-Rib web at Side Panel Bike Path side.

Segment 9CE to 9DE

WELDING INSPECTION REPORT

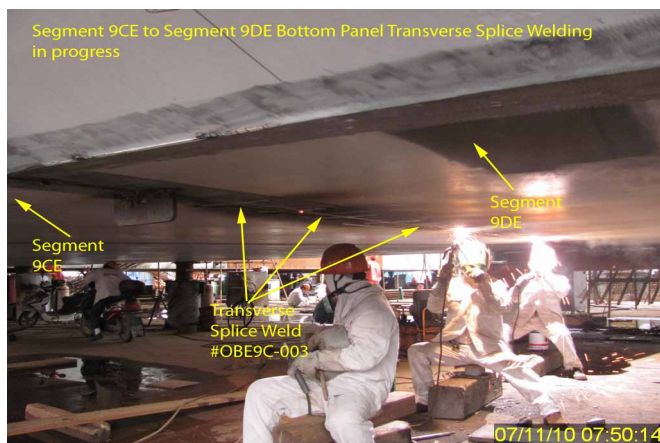
(Continued Page 4 of 5)

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as SP708-001-031, SP708-001-032, SP708-001-033, SP708-001-034 and SP708-001-035. The welder identification was 037907 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233T and WPS-B-T-2233-B-U2-F. The piece mark was identified as I-Rib to I-Rib web at Side Panel Corner Assembly Bike Path side.

Segment 9DE

This QA Inspector observed that the ZPMC personnel were cutting the Side Panel using the mechanical guided flame cutting torch on the pre-scribed lines for Segment 9DE at Panel Point (PP) 82 Bike Path side. Please reference the pictures attached for more comprehensive details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No relevant conversations were reported on this date.

Comments

WELDING INSPECTION REPORT

(Continued Page 5 of 5)

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer
